Abstract

Introduction: Lovage (*Levisticum officinale*) is a herbaceous and perennial plant of the Apiaceae (Umbelliferae) family which traditionally used for treatment of many deseases. According to previous studies, this plant has antioxidant activity. The purpose of this study, separation of antioxidant compounds from fraction obtained from ethyl acetate extract the plant.

Method: The compounds in one of the fractions obtained from ethyl acetate extract of the plant root were analyzed by column chromatography. Finally, a compound was separated and its structure was identified by 1D NMR and 2D NMR methods. The antioxidant effects of the separated compound were evaluated by bioautography method.

Results: In this study, ferrulic acid, which is a phenolic compounds, was separated from ethyl acetate extract of lovage. Bioautography revealed that this compound has antioxidant effects.

Keywords: Extract, *Levisticum officinale*, Antioxidant, Bioautography